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| EXAMINER | |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/551,860 | PETERSSON ET AL. | |
| | Examiner | Art Unit | |
| | CANDAL ELPENORD | 2416 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *16 October 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-14 and 23-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14, 23-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed October 16, 2008 have been fully considered but they are not persuasive.

2. Regarding the anticipatory rejection of claim 1(for the rest of the dependent claims), the Applicant alleged that Gronberg does not disclose " sending rate control configuration parameters", generating in the radio control node an initial rate control message including flow rate parameters, and sending at least one initial rate control message to allow the serving entity to set initial flow rate parameters fro the session".

In response, the Examiner respectfully disagrees because Gronberg '800 does in fact disclose all the claimed features: regarding, "sending rate control configuration parameters" (see, parameter values computed, flow control message for controlling the flow/session on the wireless link/ air interface and sending the flow control message with computed flow parameter values to a node, page 17, 16-29, page , lines 31-34), "generating in the radio control node an initial rate control message including flow rate parameters" (see, the packet control unit in GSM/GPRS network determining/computing parameter values (i.e. value for each flow on the air interface) and sends it to the serving SGSN node, page 5, lines 27-36, page 17, lines 16-29), and sending at least one initial rate control message to allow the serving entity to set initial flow rate parameters fro the session" (see, the serving entity (i.e. SGSN node) adjusts

its transmission rate based on the flow control message received, page 5, lines 34-36, page 17, lines 16-29).

The Applicant further alleged Gronberg does not disclose " the actual service set", "resolving addressing between the radio control node and the serving entity".

In response, the Examiner respectfully disagrees because Gronberg does disclose setting a session as demonstrated in fig. 1. Additionally, the actual transmission of data packets in GSM/GPRS network takes place after setting the connection between the radio nodes/entities (i.e. mobile terminal, SGSN node, GGSN node, packet control unit) which involves exchange of address of the packet data network, mobile identity (i.e. IMSI), user address the transmission.

3. Regarding the anticipatory rejection of claim 1, the Applicant alleged that Bedekar '310 does not disclose "sending at least one initial rate control message to allow the serving entity to set initial flow rate parameters for the session in accordance with at least one of the initial flow rate parameters".

In response, the Examiner respectfully disagrees because Bedekar '310 does in fact broadly teach the Applicant claimed invention. In particular, Bedekar '310 discloses sending flow control message (i.e. desired data rate) from radio node to a serving node (i.e. node 202), col. 6, lines 51-59, see adjusting of the data rate transfer over the air interface based on flow control message, col. 10, lines 66 to col. 11, lines 2, col. 10, lines 33-48, see, mobile terminal engages in a communication session, col. 1, lines 38-42).

The Examiner fails to see the difference between the Applicant claimed invention and the teaching features disclosed by Bedekar '310.

4. Regarding the obvious rejection of claims 3, 23-34, the alleged the combination of Gronberg '800 and Chou '796, Dorenbsach '510 fail to disclose the following claimed features: " sending rate control configuration parameters", generating in the radio control node an initial rate control message including flow rate parameters, and sending at least one initial rate control message to allow the serving entity to set initial flow rate parameters fro the session".

In response, the Examiner respectfully disagrees because Gronberg '800 does in fact disclose all the claimed features: regarding, "sending rate control configuration parameters" (see, parameter values computed, flow control message for controlling the flow/session on the wireless link/ air interface and sending the flow control message with computed flow parameter values to a node, page 17, 16-29, page , lines 31-34), "generating in the radio control node an initial rate control message including flow rate parameters" (see, the packet control unit in GSM/GPRS network determining/computing parameter values (i.e. value for each flow on the air interface) and sends it to the serving SGSN node, page 5, lines 27-36, page 17, lines 16-29), and sending at least one initial rate control message to allow the serving entity to set initial flow rate parameters fro the session" (see, the serving entity (i.e. SGSN node) adjusts its transmission rate based on the flow control message received, page 5, lines 34-36, page 17, lines 16-29).

The Applicant further alleged Gronberg does not disclose " the actual service set", "resolving addressing between the radio control node and the serving entity".

In response, the Examiner respectfully disagrees because Gronberg does disclose setting a session as demonstrated in fig. 1. Additionally, the actual transmission of data packets in GSM/GPRS network takes place after setting the connection between the radio nodes/entities (i.e. mobile terminal, SGSN node, GGSN node, packet control unit) which involves exchange of address of the packet data network, mobile identity (i.e. IMSI), user address the transmission.

The Examiner contends the combination when considered as a whole teaches the Applicant claimed invention as discussed above.

In view of the above reasons, the rejection of the claims are maintained as follows:

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1-2, 4-14** are rejected under 35 U.S.C. 102(b) as being anticipated by Gronberg et al (WO 2002/052800 A1).

**Regarding claim 1**, Gronberg '800 discloses a method for controlling the transmission flow rate of data bits ("the packet control unit controls the down link flow of frames according to a flow control algorithm", recited in page 5, lines 23-28) in a data bit transfer session from a serving entity (fig. 2, "serving SGSN 203", recited in page 7, lines 15-20) to a client (fig. 2, GPRS mobiles MS1, MS2, recited in page 7, lines 15-18), the session involving bit transfer over a wireless communications link (fig. 2, "Air", recited in page) , the method ("the packet control unit controls the down link flow of frames according to a flow control algorithm", recited in page 5, lines 23-28) comprising: setting up the session by providing a radio control node ("a packet control unit in the base station subsystem", recited in page 5, lines 23-26) to establish flow rate parameters ("computes of real leak rate for each down link flow", recited in page 5, lines 27-31) relating to the wireless link ("rate value for downlink flow", recited in page 5, lines 29-30), wherein the setting up includes: resolving addressing ("the packet control units computes a new leak value then the computed parameter value is sent to the serving SGSN node", recited in page 5, lines 27-36) between the radio control node (fig. 2, Packet Control Unit) and the serving entity (fig. 2, "serving SGSN 203", recited in page 7, lines 15-20), sending rate control configuration parameters ("parameter value, flow control message", recited in page", recited 31-34) to the radio control node (fig. 2, Packet Control Unit), generating in the radio control node (fig. 2, Packet Control Unit) an initial rate control (RC) message including initial flow rate parameters ("parameter value computed by the packet control unit included in flow control information", recited in page 5, lines 27-34) , sending at least one initial rate control message ("flow control

message sent by the packet control unit", recited in page 5, lines 27-34) to allow the serving entity (fig. 2, "serving SGSN 203", recited in page 7, lines 15-20) to set initial transmission rates for the session in accordance with at least one of the initial flow rate parameters ("the serving SGSN node adjusts its transmission rate", recited in page 5, lines 34-36); monitoring the wireless communication link ("the packet control unit counts number of bytes transmitted over the interface", recited in page ); based on monitoring ("the packet control unit counts number of bytes transmitted over the interface", recited in page ), sending new flow rate parameters ("in a flow control message, the serving SGSN is informed of the new parameters", recited in page 7, lines 33-36, "flow control messages to the serving entity", recited in page 6, lines 1-5) so that the serving entity (fig. 2, "serving SGSN 203", recited in page 7, lines 15-20) can update the transmission rate of the session in accordance with the new rate control parameters ("the serving GPRS support node adjust its transmission rate for each data flow according to instructions received from the packet control unit", recited in page 5, lines 34-36).

**Regarding claim 2**, Gronberg '800 discloses the method ("the packet control unit controls the down link flow of frames according to a flow control algorithm", recited in page 5, lines 23-28) further comprising examining ("the packet control unit counts the amount of data that has crossed the interface", recited in page 111, lines 10-18), by the radio control node ("packet control unit in the base station subsystem of fig. 2"), every message header in the flow ("identification of the flow", recited in page 13, lines 1-8)

between the client (fig. 2, Mobile Station/MS 1) and the serving entity (fig. 2, Serving SGSN entity 203) to obtain rate control configuration parameters within the examined messages ("flow control message", recited in page 13, lines 1-8).

**Regarding claim 4**, Gronberg '800 discloses the method ("the packet control unit controls the down link flow of frames according to a flow control algorithm", recited in page 5, lines 23-28) further comprising: initiating a session, by the client ("mobile station receiving data from the GPRS network", recited in page 11, lines 10-12), by sending an application layer command to the serving entity ("the serving entity SGSN is informed of the new values", recited in page 11, lines 3-5), sending, by the serving entity a transport layer command to the client (fig. 2, Mobile Station 2), examining, by the radio control node (fig. 2, Packet Control Unit of the base station subsystem), headers of transport layer commands from the serving entity (fig. 2, Serving SGSN node) to obtain rate control configuration parameters within the transport layer command ('the packet control unit estimate the real transmission rate for each downlink data flow", recited in page 11, lines 12-18), sending, by the radio control node (fig. 2, Packet Control Unit of the base station subsystem), a rate control feed back in response to finding rate control configuration parameters in the transport layer command ("the packet control unit transmit a flow control message to the SGSN after determining new value for a data flow", recited in page 13, lines 1-4).

**Regarding claim 5**, Gronberg '800 discloses the method ("the packet control unit controls the down link flow of frames according to a flow control algorithm", recited in page 5, lines 23-28) of claim 1 wherein the setting up further comprises: initiating the

session according to an application level protocol ("the packet control unit controls the down link flow according to BSSGP flow control", recited in page 11, lines 1-5), receiving, by the radio control node (fig. 2, Packet Control Unit), the rate control configuration parameters according to a first intermediate layer protocol ("the packet control unit controls the downlink according to a Base Station Subsystem GPRS Protocol", recited in page 11, lines 1-5); tying the first intermediate layer control configuration parameters to parameters according to a second intermediate layer protocol ("the packet control unit segmenting the data packets in RLC blocks suitable for down link transmission", recited in page 7, lines 28-30, "the packet control unit estimates the real transmission rate for downlink flow", recited in page 11, lines 12-18); generating the tied parameters; and including the tied parameters in the initial rate control message ("the packet control unit transmit a flow control message to the SGSN after determining new value for a data flow", recited in page 13, lines 1-4).

**Regarding claim 6**, Gronberg '800 discloses the method ("the packet control unit controls the down link flow of frames according to a flow control algorithm", recited in page 5, lines 23-28) of claim 1 wherein the setting up further comprises: initiating the session ("mobile stations receiving data", recited in page 10-14) according to an application level protocol ("the serving SGSN sends a data packet to GPRS mobile Station, the packet is then buffered in the Packet Control Unit", recited in page 10, lines 21 page 11, lines 5), receiving (fig. 2, see, packet control unit receiving over the Gigabit interface from SGSN, flow control algorithm of the BSS", recited in page 11, lines 1-5), by the radio control node (fig. 2, Packet Control Unit), the rate control configuration

parameters according to an intermediate layer protocol; sending the initial rate to the rate control IP address ("identification of data flow selected", recited in page 14, lines specified in the configuration parameters ("flow control message which includes identification of data flow in question", recited in page 13, lines 1-8).

**Regarding claim 7**, Gronberg '800 discloses the method ("the packet control unit controls the down link flow of frames according to a flow control algorithm", recited in page 5, lines 23-28) of claim 5 further comprising activating an intermediate layer information set ("the packet control unit indicates to the network node the actual transmission rate of data flow", recited in abstract, lines 6-11) between the client (fig. 2, Mobile Station MS1, MS2) and a serving support node (fig. 2, SGSN 203) in the network (fig. 2, GSM/GPRS Network).

**Regarding claim 8**, Gronberg '800 discloses the method ("the packet control unit controls the down link flow of frames according to a flow control algorithm", recited in page 5, lines 23-28) of claim 1 wherein the serving entity (fig. 2, serving SGSN 203) is an application server ("the packet control unit indicates to the network node the actual transmission rate of data flow", recited in abstract, lines 6-11).

**Regarding claim 9**, Gronberg '800 discloses the method ("the packet control unit controls the down link flow of frames according to a flow control algorithm", recited in page 5, lines 23-28) of claim 1 wherein the serving entity (fig. 2, SGSN 203) is a proxy in communication with an application server (FIG. 2, gateway GPRS support node "GGSN", routes packets to the serving entity SGSN", recited in page 7, lines 15-18).

**Regarding claim 10**, Gronberg '800 discloses the method ("the packet control unit controls the down link flow of frames according to a flow control algorithm", recited in page 5, lines 23-28) of claim 1 wherein the client is a mobile station (fig. 2, GPRS mobiles 201, recited in page 7, lines 15-16).

**Regarding claim 11**, Gronberg '800 discloses the method ("the packet control unit controls the down link flow of frames according to a flow control algorithm", recited in page 5, lines 23-28) wherein the rate control configuration parameters (see, parameter values computed, flow control message for controlling the flow/session on the wireless link/ air interface and sending the flow control message with computed flow parameter values to a node, page 17, 16-29, page , lines 31-34) are selected from the group consisting of a rate control method indicator, a rate control identifier ("the rate at which the serving entity is allowed to transmit within a given flow, it has certain default value", recited in page 8, lines 25-28).

**Regarding claim 12**, Gronberg '800 discloses the method ("the packet control unit controls the down link flow of frames according to a flow control algorithm", recited in page 5, lines 23-28) of claim 1 wherein the flow rate parameters ("parameters values are specific for each data flow", recited in page 8, lines 18-20) are selected from the group consisting of a rate control identifier ("the rate at which the serving entity is allowed to transmit within a given flow, it has certain default value", recited in page 8, lines 25-28) and a bit rate ("leak rate R", recited in page 8, lines 21-22).

**Regarding claim 13**, Gronberg '800 discloses the method ("the packet control unit controls the down link flow of frames according to a flow control algorithm", recited in page 5, lines 23-28) wherein the application layer protocol is the Real Time Streaming Protocol (RTSP), the first intermediate protocol is Radio Access Network Application Part (RANAP) (fig. 1, fig. 2, "GSM/GPRS network", recited in page 7, 10-13), and the second intermediate protocol is Iu UP or GTP over IP (fig. 1, fig. 2, "GB and GN interface", recited in page 7, lines 16-18).

**Regarding claim 14**, Gronberg '800 discloses the method ("the packet control unit controls the down link flow of frames according to a flow control algorithm", recited in page 5, lines 23-28) of claim 1 wherein the session occurs within a network which is a Universal Mobile Telephony System (UMTS) fig. 1 fig. 2, GSM Network, recited in page 6, lines 31-34, page 7, lines 10-13), a General Packet Radio Service (GPRS) system (fig. 2, GPRS network).

**Second Set of Rejection**

7. **Claim 1** is rejected under 35 U.S.C. 102(e) as being anticipated by Bedekar et al (US 7,047,310 B2).

**Regarding claim 1**, Bedekar '310 discloses a method for controlling the transmission flow rate ("flow control mechanism that controls a rate at which data is transferred", recited in col. 6, lines 37-43) of data bits ("the rate at which a node conveys data to packet control unit is premised on a rate of data over", recited in col. 6, lines 15-19) in a data bit transfer session from ("data transferred by node 202 (as the serving

SGSN) to packet control unit", recited in col. 6, lines 15-19) a serving entity (fig. 2, Node 202 as the serving SGSN node, recited in col. 5, lines 22-30) to a client (fig. 2, Mobile Station 224, recited in col. 5, lines 4-16) the session involving bit transfer ("mobile Station establishing a data communication", recited in col. 5, lines 57-66) over a wireless communications link (fig. 2, Air Interface 222, recited in col. 5, lines 4-16), the method comprising: setting up the session ("node 210 determines a desired data rate in bits per second", recited in col. 6, lines 52-59) by providing a radio control node (fig. 2, Packet Control Unit 210 (Node 210) to establish flow rate parameters ("the node embeds the desire data transfer rate and then conveys to node 202 flow control message", recited in col. 6, lines 52-59) relating to the wireless link (fig. 2, Air Interface 222, recited in col. 5, lines 4-16), wherein the setting up includes: resolving addressing between the radio control node (fig. 2, Packet Control Unit 210) and the serving entity (fig. 2, Node 202), sending rate control configuration parameters ("adjusting by the serving node", "implements the desired data rate", recited in col. 8, lines 16-24) to the radio control node (fig. 2, Packet Control Node 210), generating ("each parameter of flow control parameters may be freshly calculated", recited in col. 7, lines 56-63) in the radio control node (fig. 2, Packet Control Unit 210) an initial rate control (RC) message including initial flow rate parameters ("flow control parameters", recited in col. 7, lines 56-63), sending at least one initial rate control message ("upon receiving the flow control message", recited in col. 8, lines 16-20) to allow the serving entity (fig. 2, Nodes 202) to set initial transmission rates for the session in accordance with at least one of the initial flow rate parameters ("adjusting by the serving node", "implements the desired

data rate", recited in col. 8, lines 16-24); monitoring the wireless communication link ("change of data rate over the interface", recited in col. 10, lines 55-58); based on monitoring sending new flow rate parameters ('second flow message", recited in col. 10, lines 33-35, "dynamically adjust a rate at which flow control messages are conveyed to node 202", recited in col. 39-46) so that the serving entity (fig. 2, Node 202) can update the transmission rate of the session in accordance with the new rate control parameters ("node 202 adjusts the data rate corresponding based on the desired data rate", recited in col. 10, lines 33-41).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. **Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over Gronberg et al (WO 2002/052800 A1) in view of Chou et al (US 2003/0018796 A1).

**Regarding claim 3**, Gronberg '800 discloses the method ("the packet control unit controls the down link flow of frames according to a flow control algorithm", recited in page 5, lines 23-28) of claim 2 further comprising: activating an intermediate layer information set ("the packet control unit indicates to the network node the actual transmission rate of data flow", recited in abstract, lines 6-11) between the client (fig. 2, Mobile Station MS1, MS2) activating an intermediate layer information set between the client (fig. 2, Mobile Station/MS 2) and a gateway node (fig. 2, GGSN node 202); sending ("GGSN routes data packets over the air interface to the serving SGSN", recited in page 7, lines 15-20), by the gateway node (fig. 2, GGSN node 202) an application layer message to the serving entity (fig. 2, serving SGSN node 203); receiving, by the radio control node (fig. 2, Packet Control Unit), a radio control initiation

message ("transmission rate adjustment", recited in page 5, lines 34-36) from the serving entity (fig. 2, serving SGSN node), to allow the radio control node (fig. 2, Packet Control Unit) to send messages to the serving entity (fig. 2, serving SGSN node); and sending, by the radio control node (fig. 2, Packet Control Unit 208), a rate control message ("flow control message", recited in page 5, lines 31-36, "leak rate corresponds to rate", recited in page 8, lines 25-28) to the serving entity (fig. 2, serving SGSN node 203), wherein the rate control message ("flow control message", recited in page 5, lines 31-36) contains flow rate parameters ("the parameter value computed is sent to the serving SGSN node", recited in page 5, lines 30-36).

Gronberg '800 is silent with regard to the claimed features: including the IP address of the client; including the IP address of the serving entity including the IP address of the client; including the IP address of the serving entity.

Chou '796 from the same field of endeavor discloses the above claimed features: including the IP address of the client ("the service module transmits information using the source and port address associated with the client", recited in paragraph 12-18); including the IP address of the serving entity ("source and port address of the server", recited in paragraph 0029, lines 12-21); including the IP address of the client ("the service module transmits information using the source and port address associated with the client", recited in paragraph 12-18); including the IP address of the serving entity ("source and port address of the server", recited in paragraph 12-21). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Gronberg et al. by using features as taught by Chou et

al. in order to provide flow control associated with the downlink channel using the IP address which reduces the possibility of congestion at the air interface.

12. **Claims 23-34** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou et al (US 2003/0018796 A1) in view of Gronberg et al (WO 2002/052800 A1).

**Regarding claim 23**, Chou '796 discloses a method for controlling ("flow control to regulate the data transmission", recited in paragraph 0015, lines 1-8) the transcoding rate ("the multimedia information is transcoded", recited in paragraph 0011, lines 4-12) of a media gateway (fig. 1A, Gateway 160, recited in paragraph 0025, lines 13-21) during a data bit transfer session from the media gateway (fig. 1A, Gateway 160, recited in paragraph 0025, lines 13-21, "enables information to be transceived between the clients", recited in paragraph 0025, lines 18-23)) to a client (fig. 1B, Wireless Clients 110, recited in paragraph 0025, lines 20-24), the bit transfer session involving bit transfer ("the information is transmitted to the wireless client over the wireless channel", recited in paragraph 0025, lines 23-28) over a wireless communications link ("the available transmission rate of the downlink channel", recited in paragraph 0011, lines 9-13), the method comprising: to establish transcoding rate parameters (fig. 1B, 3A, "service Module 190, the service module may configured to transcode multimedia communicated from the server to wireless client to conform to the available transmission rate of the down link channel", recited in paragraph 0028) to the wireless link (fig. 1B, Wireless Channel 115, recited in paragraph 0026, lines 1-7) wherein the setting up includes: resolving addressing ("the service module may configured to

transmit information to the server using the source address and source port address associated with the wireless client and transmits the transcoded information to the wireless client using the source address and source port address associated with the server", recited in paragraph 0029, lines 12-21) between the radio control node (fig. 1B, fig. 3A, Service Module 190, recited in paragraph 0029, lines 6-12) and the media gateway (fig. 3A, Server 180, recited in paragraph 0029, lines 6-12), initial transcoding rate parameters (fig. 3A, Transcode 355, "estimate of multimedia information to conform with the available transmission rate of the downlink channel", recited in paragraph 0028) sending at least one initial rate control message so that the media gateway (fig. 3A, Service Module 190) can set initial transcoding rates for the session in accordance with at least one of the initial transcoding rate parameters ("the service module configured to transcode the multimedia information communicated from the server to the client to conform with available transmission rate of the down link channel", recited in paragraph 0028); monitoring the wireless communication link ("intercepting of multimedia information between transmitter and a receiver where the information is encoded at a first transmission rate", recited in paragraph 0011); based on monitoring ('if the first transmission rate is greater than the available transmission rate", recited in paragraph 0011), sending new transcoding rate parameters so that the media gateway (fig. 3A, Service Module 190) can update the transmission rate of the session in accordance with the new transcoding rate parameters ("the service module in operation, may be configured to transcode the multimedia information from the server to the client

to conform to the available transmission rate of the downlink channel', recited in paragraph 0028)..

**Regarding claim 24**, Chou '796 discloses the method ("flow control to regulate the data transmission", recited in paragraph 0015, lines 1-8) of claim 23 further comprising examining (fig. 3A, IP Filter Layer 322, recited in paragraph 0033, lines 6-14), by the radio control node, every message header in the flow ("classifying the received packet in accordance with classification rules between the client (fig. 3A, Wireless Client 110) and the media gateway (fig. 3A, Service Module 190) to obtain rate control configuration parameters within the examined messages ("determining whether the packet header corresponds to the transcoding services provided by the service module", recited in paragraph 0033, lines 9-18).

**Regarding claim 25**, Chou '796 discloses the method further comprising: activating an intermediate layer information set between the client (fig. 1B, Wireless Client 110) and a gateway node (fig. 1B, GGSN 150) in the network (fig. 1B, GPRS network); sending, by the gateway node (fig. 1B, GGSN 150), an application layer message to the media gateway, including the IP address of the client ("the service module transmits information using the source and port address associated with the client", recited in paragraph 12-18); including the IP address of the media gateway ("the service module transmits information using the source and port address associated with

the client", recited in paragraph 12-18) , the media gateway to allow the radio control node to send messages to the media gateway.

**Regarding claim 26**, Chou '796 discloses the method further comprising: initiating a session, by the client (fig. 3A, Wireless Client 110), by sending an application layer command to the media gateway, sending, by the media gateway (fig. 3A, Service Module 190), a transport layer command to the client (fig. 3A, Wireless Client 110) wherein the transport layer command includes rate control configuration parameters ("the service module transmit the transcoded multimedia information to the wireless client", recited in paragraph 0028, lines 15-21).

**Regarding claim 29**, Chou '796 the method ("flow control to regulate the data transmission", recited in paragraph 0015, lines 1-8) of claim 27 further comprising activating an intermediate layer information set between the client (fig. 1B, fig. 3A, Wireless Client 110) and a serving support node (fig. 1B, SGSN 140) in the network (fig. 1B, Wireless Data Backbone Network).

**Regarding claim 30**, Chou '796 discloses the method ("flow control to regulate the data transmission", recited in paragraph 0015, lines 1-8) of claim 23 wherein the client (fig. 1B, Wireless Client 110).

**Regarding claim 31**, Chou '796 discloses the method ("flow control to regulate the data transmission", recited in paragraph 0015, lines 1-8) of claim 23 wherein the rate control configuration parameters (fig. 3, Classification Rules 330, recited in paragraph 0033, lines 9-14) are selected from the group consisting of a rate control method indicator, a rate control identifier, a rate control IP address ("determines whether the packet corresponds to the transcoding service", recited in paragraph 0033, lines 6-14), and rate control port numbers ("port used for designating web-based service requests", recited in paragraph 0033, lines 20-26).

**Regarding claim 32**, Chou '796 discloses the method ("flow control to regulate the data transmission", recited in paragraph 0015, lines 1-8) of claim 23 wherein the transcoding rate parameters are selected from the group consisting of a rate control identifier ("smoothed congestion window parameter associated with downlink channel", recited in paragraph 0028) and a bit rate ("first transmission rate", recited in paragraph 0011).

**Regarding claim 34**, Chou '796 discloses the method ("flow control to regulate the data transmission", recited in paragraph 0015, lines 1-8) of claim 23 wherein the session occurs within a network which is a Universal Mobile Telephony System (UMTS), a General Packet Radio Service (GPRS) system (fig. 1B, Wireless backbone network that employs GPRS architecture, recited in paragraph 0025, lines 1-10), or a WLAN network.

Chou '796 discloses al the claimed limitation with the exception of being silent with respect to the following features: **regarding claim 23**, setting up the session by providing a radio control node, resolving addressing between the radio control node and the media gateway, sending rate control configuration parameters to the radio control node; **regarding claim 24,** examining, by the radio control node, every message header in the flow between the client and the media gateway to obtain rate control configuration parameters within the examined messages; **regarding claim 25**, and receiving, by the radio control node, a rate control initiation message, including the IP address of the media gateway to allow the radio control node to send messages to the media gateway; **regarding claim 26**, and examining, by the radio control node, the headers of transport layer commands to obtain rate control configuration parameters within the transport layer commands; **regarding claim 27**, initiating the session according to an application level protocol, receiving, by the radio control node, the rate control configuration parameters according to a first intermediate layer protocol; tying the first intermediate layer control configuration parameters to parameters according to a second intermediate layer protocol; generating the tied parameters; and including the tied parameters in the initial rate control message; **regarding claim 28**, initiating the session according to an application level protocol, receiving, by the radio control node, the rate control configuration parameters according to an intermediate layer protocol; sending the initial rate to the rate control IP address specified in the configuration parameters; **regarding claim 30**, wherein the client is a mobile station; **regarding**

**claim 31**, wherein the rate control configuration parameters are selected from the group consisting of a rate control method indicator, a rate control identifier.

Gronberg '800 from the same field of endeavor discloses the above claimed features:

**Regarding claim 23**, setting up the session ("receives of data frames from an external network", recited in page 23-28) by providing a radio control node (fig. 2, Packet Control Unit), resolving addressing ("the packet control units computes a new leak value, then the computed parameter value is sent to the serving SGSN node", recited in page 5, lines 27-36) between the radio control node (fig. 2, Packet Control Unit) and the media gateway, sending (fig. 2, see, packet control unit receiving over the Gigabit interface from SGSN) rate control configuration parameters ("flow control algorithm of BSSSGP", recited in page 11, lines 1-5) to the radio control node (fig. 2, Packet Control Unit 208).

**Regarding claim 24**, examining ("the packet control unit counts the amount of data that has crossed the interface", recited in page 111, lines 10-18), by the radio control node ("packet control unit in the base station subsystem of fig. 2"), every message header in the flow ("identification of the flow", recited in page 13, lines 1-8) between the client (fig. 2, Mobile Station/MS 1) and the serving entity (fig. 2, Serving SGSN entity 203) to obtain rate control configuration parameters within the examined messages ("flow control message", recited in page 13, lines 1-8); examining, by the radio control node, every message header in the flow between the client and the media gateway (fig. 2, gateway GGSN, recited in page 2, lines 5-7, page 7, lines 15-18) to

obtain rate control configuration parameters within the examined messages ("the packet control unit counts the amount of data that has crossed the air interface", recited in page 11, lines 10-18).

**Regarding claim 25**, and receiving (fig. 2, see, packet control unit receiving over the Gigabit interface from SGSN) by the radio control node (fig. 2, Packet Control unit) , a rate control initiation message, including the IP address of the media gateway to allow the radio control node (fig. 2, Packet Control Unit) to send messages to the media gateway ( noted: fig. 1 in combination with fig. 2 ,transmission of data packets, flow control message from the serving entity to GGSN gateway and vice based on the IP address of radio nodes).

**Regarding claim 26**, and examining, by the radio control node (fig. 2, packet control unit of BSS), the headers of transport layer commands to obtain rate control configuration parameters ("the flow control parameters are updated for each downlink flow", recited in page 7, lines 31-36) within the transport layer commands ("the packet control units counts the amount of data transmitted over the air interface', recited in page 7, lines 31-36).

**Regarding claim 27**, initiating the session (fig. 2, "each time a downlink flow is established", recited in page 14, lines 7-11) according to an application level protocol ("each time a downlink flow is established", recited in page 14, lines 7-11), receiving (fig. 2, see, packet control unit receiving over the Gigabit interface from SGSN), by the radio control node (fig. 2, Packet control unit of BSS), the rate control configuration parameters ("flow control parameters", recited in page 7, lines 31-36) according to a first

intermediate layer protocol ("the packet control unit controls the downlink flow of LLC frames according to a BSSGP flow control algorithm", recited in page 11, lines 1-5); tying the first intermediate layer control configuration parameters ("flow control", recited in page 11, lines 1-5) to parameters according to a second intermediate layer protocol ("the packet control unit estimates the real transmission rate", "the amount of data crossing the air interface", recited in page 11, lines 10-18); generating the tied parameters ("flow control parameter values are updated", recited in page 11, lines 1-5); and including the tied parameters in the initial rate control message ("the packet control unit transmit a flow control message", recited in page 13, lines 1-8).

**Regarding claim 28**, initiating the session according to an application level protocol ("GPRS mobiles receiving data", recited in page 11, lines 10-18), receiving, by the radio control node (fig. 2, packet control unit) , the rate control configuration parameters according to an intermediate layer protocol; sending the initial rate to the rate control IP address ("the flow control message includes identification of data flow", recited in page 13, lines 1-8) specified in the configuration parameters ("the packet control unit transmit a flow control message", recited in page 13, lines 1-8).

**Regarding claim 30**, wherein the client (fig., 2, Mobiles 201) is a mobile station (fig. 2, see MS 1, MS 2 connecting to the air interface).

**Regarding claim 31**, wherein the rate control configuration parameters are selected from the group consisting of a rate control method indicator ("the rate at which the SGSN is allowed to transmit", recited in page 8, lines 24-28), a rate control identifier ("identification of the data flow", recited in page 13, lines 1-8).

In view of the above, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Chou '796 by using features as taught by Gronberg '800 in order to provide adjustment of data flow over the air interface which in turns reduces congestion as suggested in page 5, lines 23-36 for motivation.

13. **Claim 33** is rejected under 35 U.S.C. 103(a) as being unpatentable over Chou et al (US 2003/0018796 A1) in view of Gronberg et al (WO 2002/052800 A1) as applied to claim 23 above, and further in view of Dorenbsoch et al (2003/0095510 A1).

Chou '796 discloses the first intermediate protocol is Radio Access Network Application Part (RANAP) (fig. 1B, GPRS network).

Gronberg '800 discloses the second intermediate protocol is Iu UP, all the claimed limitation with the exception of being silent with regard to the claimed features: The method wherein the application layer protocol is the SIP [Session Initiated Protocol], the first intermediate protocol is Radio Access Network Application Part (RANAP), and the second intermediate protocol is Iu UP (fig. 1, fig. 2, "GB and GN interface", "air interface", recited in page 7, lines 16-18).

Chou '796 and Gronberg '800 are silent with regard to the wherein the application layer protocol is the SIP [Session Initiated Protocol].

Dorenbsoch '510 from the same field of endeavor discloses the wherein the application layer protocol is the SIP [Session Initiated Protocol], ("session initiation protocol for call set-up purposes", recited in paragraph 0016).

IN view of the above, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Chou et'796 with Gronberg '800 by using features as taught by Dorenbsoch '510 in order to provide call registration using SIP as suggested in paragraph 0019 for motivation.

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Galyas et al (US 6,687,226 B1) and Barany et al (US 2001 /0043577 A1).

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CANDAL ELPENORD whose telephone number is

(571)270-3123. The examiner can normally be reached on Monday through Friday 7:30AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Bin Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Candal Elpenord/

Examiner, Art Unit 2416

/Kwang B. Yao/
Supervisory Patent Examiner, Art Unit 2416